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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,524	03/29/2001	Yong Yan	5121-6	6084

24737 7590 02/24/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

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EXAMINER

DETWILER, BRIAN J

ART UNIT

PAPER NUMBER

2173

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DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,524

Applicant(s)

YAN ET AL.

Examiner

Brian J Detwiler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign not mentioned in the description: Reference Sign 20. The description fully discloses reference signs 20A and 20B, but fails to address 20. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference signs in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 7, 9, 11-13, 15, 17, 19, and 21-23 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,460,056 (Horii).

Referring to claims 1, 11, 17, and 22, Horii discloses in Figure 4 a system comprising speech input terminal [11], speech recognizer [13], speech dictionary [14], storage device [15], image dictionary storage [6], video output signal processor [24], image composer [23], and display [9]. In column 4: line 40 through column 5: line 23, Horii first explains that speech

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received at the input terminal [11] is recognized and stored at storage device [15]. A compressed image related to the recognized voice signal is then retrieved from the image dictionary storage [6] and transmitted to the image composer [23] through the video output signal processor [24].

In column 3: lines 11-17, Horii further explains that said image dictionary storage device comprises sign language images that may be obtained by adding motion to images produced by computer graphics (i.e. animation). Accordingly, a sign language animation model is inherently taught by Horii, because such would be required to relate the compressed sign language images to the recognized voice signals. In column 4: lines 14-21, Horii teaches that the recognized speech is first stored as character data. The inherent linking structure between said character data and the sign language images thus corresponds to the claimed animation model parameters. The generated animation signal is then used to render an animation image on a portion of a display as illustrated in Figure 5. Regarding claim 11, Horii's invention must inherently isolate the speech component from an audio component so that spoken words can be recognized and correlated with the associated sign language images. Regarding claims 17 and 22, Horii's invention must inherently comprise transmitters and receivers for transmitting and receiving the audio/video signals.

Referring to claims 6, 12, and 19, Horii discloses in column 3: lines 7-17 that the image dictionary storage device [6] comprises a plurality of images related to character codes. Horii further explains in this section that the images can be obtained by adding motion to (animating) computer graphics. Accordingly, said images correspond to the claimed multiple character icons.

Referring to claims 7 and 13, Horii discloses in column 2: lines 57-61 that a keyboard (monitor control device) can be used to activate the processor.

Referring to claim 9, 15, 21, and 23, Horii discloses in column 3: lines 7-17 that the image dictionary storage device [6] comprises a plurality of sign language images corresponding to related character codes. Horii further explains in column 4: lines 1-39 that spoken words from the speech component of the audio/video signal are correlated to the sign language symbols.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,460,056 (Horii).

Referring to claims 3-5, Horii discloses in column 5: lines 14-23 that the audio/video signal could come from a television program, which is generally produced and transmitted from a location that is remote from the monitor. Horii, though, fails to disclose that the mapping step is performed remotely from the monitor, that the mapping step is performed proximate the transmitter, or a step of transmitting the animation model parameters to the monitor. The actual display, however, is typically only used to display an associated video signal. The physical location of Horii's display is then by no means instrumental to the operation of the invention. The transmitting and mapping steps can be performed anywhere as long as the video signal can

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be routed back to the display for viewing. Furthermore, the examiner submits that it is notoriously well known in the state of the art that displays can be located remotely from where video signals and parameters are generated and transmitted. The examiner takes OFFICIAL NOTICE of this teaching. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the mapping step remotely from the monitor/display and proximate the transmitter. Such an implementation would allow greater flexibility in deploying the invention in a variety of locations and environments. In this implementation, the animation model parameters would be transmitted to the monitor.

Claims 8, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,460,056 (Horii) as applied to claims 6, 12, and 19 above, and further in view of U.S. Patent No. 6,665,643 (Lande et al).

Referring to claims 8, 14, and 20, Horii fails to disclose displaying a character icon comprising a face with a mouth and animating the mouth to simulate speech corresponding to the speech component of the audio/video signal. Lande, though, discloses in column 2: lines 31-67 a mechanism for animating a synthesized model of a human face, wherein the animation is driven by an audio signal. Ultimately, the synthesized model comprises a face with a mouth that is animated to correspond with the speech component of the audio signal. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an animated model of a face with a mouth as taught by Lande in the invention of Horii. In instances wherein the primary video component fails to include images of the person from

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whom the speech is coming from, the animated model advantageously provides hearing disabled viewers with the option to lip read instead of interpreting hand gestures.

Claims 10, 16, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,460,056 (Horii) as applied to claims 1, 11, 17, and 22 above, and further in view of "Text-driven automatic frame generation using MPEG-4 synthetic/natural hybrid coding for 2-D head-and-shoulder scene".

Referring to claims 10, 16, 18, and 24, Horii fails to disclose generating animation model parameters via Synthetic Natural Hybrid Coding (SNHC). The "Text-driven..." reference, however, teaches that it is well known to use SNHC to generate animation parameters because it increases the intelligibility of non-verbal communication. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use SNHC as taught by the "Text drive..." reference to generate the animation model parameters in Horii's invention. As suggested in the "Text drive..." reference, SNHC advantageously increases the intelligibility of non-verbal communication.


Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach alternative methods of adding sign language and other features to a video signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J Detwiler whose telephone number is 703-305-3986. The examiner can normally be reached on Mon-Thu 8-5:30 and alternating Fridays 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Cabeca can be reached on 703-308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CAO (KEVIN) NGUYEN
PRIMARY EXAMINER

bjd